

Rpt. 4c.-B

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No.

Date of writing Report 20-3-53 (Yokohama)

When handed in at Local Office 30 JUN 1953

Received at London Office

F9 JUL 1953

No. in Survey held at Shimizu & Nagoya Japan

Reg. Book.

Date, First Survey 8-7-52

Port of Yokohama & Kobe

20-11-52 (Yokohama)

Last Survey 3-4-53

Number of Visits 19

Single
on the Twin
Triple
Quadruple

Screw vessel

T.M.V. "NEW YORK MARU"

Built at Nagoya Japan

By whom built Nagoya shipbuilding Co., Ltd.

Yard No. 104

Tons { Gross 773.79

Net 4429.84

When built April 53

Owners Toho Kaiun K.K.

Port belonging to Tokyo

Oil Engines made at Shimizu Japan

By whom made Ito Engineering Co., Ltd.

Contract No. 4067

When made 11-52

Generators made at Kawasaki Japan

By whom made Fuji Electric Mfg. Co., Ltd.

Contract No. 2136.72A

When made 10-52

No. of Sets 1

Engine Brake Horse Power 120

M.N. as per Rule 24

Total Capacity of Generators 100

KVA

Kilowatts

Is Set intended for essential services Yes

OIL ENGINES, &c.—Type of Engines

4 SCSA Trunk Piston

2 or 4 stroke cycle 4

Single or double acting Single

Maximum pressure in cylinders 50 kg/cm²

Diameter of cylinders 230 mm

Length of stroke 360 mm

No. of cylinders 3

No. of cranks 3

Mean indicated pressure 6.45 kg/cm²

Firing order in cylinders 1-3-2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 288 mm

Is there a bearing between each crank Yes

Moment of inertia of flywheel (16 m² or Kg.-cm.²) 5.55 x 10⁶

Revolutions per minute 450

Flywheel dia 1300 mm

Weight 2240 kg

Means of ignition Compression

Kind of fuel used Diesel oil

Crank Shaft, dia. of journals

as per Rule 127 mm

as fitted 145 "

Crank pin dia 140 mm

Crank Webs

Mid. length breadth 220 mm

Mid. length thickness 70.5 "

shrink Thickness parallel to axis

Thickness round eyehole

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

General armature, moment of inertia (16 m² or Kg.-cm.²) 4.67 x 10⁵

Are means provided to prevent racing of the engine when declutched Yes

Means of lubrication Forced

Kind of damper if fitted No

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water cooled

Cooling Water Pumps, No. 1

motor

Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1

19 HP/Hour

Air Compressors, No. -

No. of stages -

Diameters -

Stroke -

Driven by -

Scavenging Air Pumps, No. -

Diameter -

Stroke -

Driven by -

AIR RECEIVERS:—Have they been made under Survey Yes

State No. of Report or Certificate 400L M902

120L M901

Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

Can the internal surfaces of the receivers be examined Yes

What means are provided for cleaning their inner surfaces Hand holes

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. -

Cubic capacity of each -

Internal diameter -

thickness -

Seamless, lap welded or riveted longitudinal joint -

Material -

Range of tensile strength -

Working pressure by Rules -

Starting Air Receivers, No. 2

Total cubic capacity 400L x 30 kg/cm²

Internal diameter 600 mm

Shell pl. End pl 16 mm 19 x 22 mm

Seamless, lap welded or riveted longitudinal joint Riveted

Material O.H. Steel

Range of tensile strength 400L x 30 kg/cm²

Working pressure by Rules -

ELECTRIC GENERATORS:—Type Semi enclosed, drip proof 3 phase synchronous

Pressure of supply 225 volts

Full Load Current 251

Amperes

Direct or Alternating Current AC

If alternating current system, state the periodicity 60

Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

on and off Yes Generators, are they compounded as per Rule Yes

is an adjustable regulating resistance fitted in series with each shunt field -

Are all terminals accessible, clearly marked, and furnished with sockets Yes

Are they so spaced

or shielded that they cannot be accidentally earthed, short circuited, or touched Yes

Are the lubricating arrangements of the generators as per Rule Yes

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test -

and do the results comply with the requirements -

If the generators are 100 kw. or over have they been built and tested under survey Yes

Details of driven machinery other than generator No.

PLANS.—Are approved plans forwarded herewith for Shafting 23-8-52

(If not, state date of approval)

Receivers 12-11-52

Separate Tanks 21-6-52

Have Torsional Vibration characteristics if applicable been approved 23-2-53

(state date of approval)

Armature shaft Drawing No. M321968A

SPARE GEAR Fuel injection valve complete - 1 set

Nozzle tip - 3 sets

Suction valve complete - 1 set

Suction valve - 2

Exhaust valve complete - 2 sets

Exhaust valve - 2

Starting valve complete - 1 set

cylinder safety valve complete - 1 set

Piston complete - 1 set

Piston ring - 10

crank pin bearing - 1 set

Piston pin and brass - 1 set

Main bearing - 1 set

Fuel pump complete - 1 set

Fuel injection pipe - 3

cylinder liner - 1

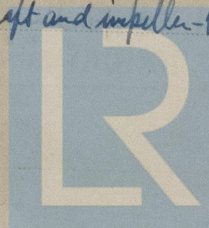
cooling water pump shaft and impeller - 1

ETC.

The foregoing is a correct description,

T. Kanazawa, Deputy of Chief Engineer, Manufacturer.

Ito Engineering Co., Ltd.



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013596-013603-0182

Dates of Survey while building { During progress of work in shops -- } 1952 JULY 8.19 AUG. 6.16 SEPT. 6.30 NOV. 17.20 (Yokohama) Dec 9.
 { During erection on board vessel -- } 1952 AUG 8 OCT 5
 { 1953 FEB 4.5 MAR 9.10.31 APR 2.3.4.
 Total No. of visits 9 (Yokohama) + 10 (Nagoya) Total 19
 Dates of Examination of principal parts—Cylinders 8-7-52 (liner) 19-7-52
 6-9-52 (cylinder) Covers 16-8-52 Pistons 20-11-52 Piston rods —
 Connecting rods 5-10-52 (Kobe) Crank and Flywheel shafts 8-8-52 (Kobe) Intermediate shafts —
 Crank shaft { Material 0. H. steel Tensile strength 33 7/8"
 { Elongation 37 % Identification Marks NO. MDCK 112 AMLR 8-8-52
 Flywheel shaft, Material — Identification Marks —
 Identification marks on Air Receivers 400 L 120 L
 NO. 10439 NO. 10440
 LLOYD'S TEST LLOYD'S TEST
 45 KG 33.5 KG
 WP 30 KG WP 20 KG
 HT 9-12-52 HT 9-12-52
 Is this machinery duplicate of a previous case Yes If so, state name of vessel T. M.V. "YOKOHAMA MARU"

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The Electric generator set has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters.

The materials and workmanship are good.

The Electric generator set has been examined under full power working condition in the shop and found satisfactory.

It is submitted that this Electric generator set is eligible for classification with this Society with the notation of + LMC when satisfactorily installed in the vessel.

These engines have been installed on board the T.M.V. "NEW YORK MARU" and examined under full working condition & found satisfactory.

During Construction

The amount of Fee... £ ¥ 23,000.-

YOKOHAMA

When applied for

19

Travelling Expenses (if any) £ :

When received

19

M. Kamabara & *Shimada*

Surveyor to Lloyd's Register of Shipping.

FRIDAY 28 AUG 1953

Committee's Minute

Assigned

Sir F. E. Moly



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